

REMARKS

STATUS OF CLAIMS

Claims 2-7 and 17-22 are pending for examination. Claims 12-15, 27-31 are withdrawn.

PRIOR ART REJECTION

Claims 2-7 and 17-22 stand rejected under 35 U.S.C. § 103 as obvious over Kanemitsu (6,499,9510).

The examiner's rejection is respectfully traversed.

SUMMARY OF INTERVIEW

The examiner and the Primary examiner Luu are thanked for the courtesy of the interview held on March 22, 2004. During the interview, applicants' representative summarized embodiments of applicants' invention as shown for example in applicants' figures 5(b) and 6(b) and pointed out how the claim 2, for example recited the important limitation of applicants' claim including :

wherein if a second request from a second requestor for one or more objects is received prior to the delivery of one or more objects from the first request, the server is programmed for scheduling the delivery of the objects in the second request and undelivered objects in the first request in ascending order of object size.

Further, applicants' representative pointed out important limitations of the dependent claims 3 and 5 in which the priority value is calculated, in part, based on the waiting time of the object.

During the interview, Applicants' representative discussed the applied Kanemitsu reference and indicated that the above two discussed limitations are not disclosed nor made obvious over Kanemitsu.

Primary examiner Luu requested that we file an appropriate amendment and that a closer look at the Kanemitsu reference would be undertaken by Examiner Ngyun and himself.

Set forth herein is a more detailed reply to the outstanding office action. It is pointed out that only a small change is made to claim 6 as applicants believe that the other claims already clearly distinguish over the prior art.

SUMMARY OF PRIOR ART KANEMITSU REFERENCE

Kanemitsu is directed toward a vehicle navigation system in which information is sent to a user of the vehicle upon a request made by the user for information. Kanemitsu thus discloses an information transmission method and device for preventing a client from getting an impression that he/she is being kept waiting for a response, even when the response contains a large amount of data. For that purpose, data obtained in the information providing center, as the search results, are arranged in an ascending order of data amount from smallest to largest for transmitting to the client. Kanemitsu discloses a technique only for transmitting a batch of data retrieved as a query by a single client. Kanemitsu does not mention conflicts resulting from data transmission triggered by queries from multiple clients.

There are four embodiments described in Kanemitsu described as follows:

Case 1: In this embodiment there is one search result for one search request and the result contains plural types of data. See column 4, lines 58-Column 5, line 19.

Case 2: In this embodiment, there are plural search results for one search request and each result contains plural types of data. See column 5, line 25- column 6, line 26.

Case 3: In this case, the search results for one search request are divided into units for transmission and display.

Case 4: In this case one search request requires more than one database retrieval.

As may be seen, in each of the above disclosed embodiments of Kanemitsu, the discloser is concerned with only one search request.

APPLICANTS' CLAIM LIMITATIONS NOT DISCLOSED NOR MADE OBVIOUS OVER KANEMITSU

In distinct contrast, applicants' independent claims recite limitations that are not disclosed nor made obvious over Kanemitsu. These limitations include:

Claim 2:

wherein if a second request from a second requestor for one or more objects is received prior to the delivery of one or more objects from the first request, the server is programmed for scheduling the delivery of the objects in the second request and undelivered objects in the first request in ascending order of object size.

The underlined portions of claim 2 are particularly important. Applicants' Figure 5(b) illustrates an application of claim 2 and is discussed in applicants' specification beginning on

page 10, line 24. A new object 4 (#62) from a second requester arrives at time $t=t_3$ and is placed as the third object to be transmitted in Fig. 5(b) even though another larger object 1 was already ready for transmission. Object 1 is moved to the fourth spot and object 4 is positioned at the third spot. Kanemitsu is COMPLETELY SILENT as to second requester and as to any consideration of applying a global priority scheme as to all requesters so that the order of the objects are considered as to ALL requesters as a group. Only ordering of objects for SINGLE REQUESTERS are discussed in Kanemitsu.

In connection claim 2 (as well as claim 4) the examiner states the second request from the second requester is the same as or obvious from the Kanemitsu teaching stating: “regardless of the order of the search requests which could come from other vehicles or clients (i.e., second request received prior to or during the processing of the first request) ... all received data is temporarily stored, arranged so that data with the smallest amount is first transmitted.” The examiner cites C4: L58-67; C5: 11-19; C6: L28-49; and C8: L23-27. However, applicant can find no teaching in Kanemitsu including the portion cited by the Examiner, in which a second request is received from a second requestor and that object of the second request are received in the server prior to delivery of one or more objects from the first request and in which the server is programmed for scheduling the delivery of the object in the second request and the undelivered objects in the first request in ascending order of object size. The portions cited by the examiner correspond to the first, second and fourth embodiments of Kanemitsu, and, as stated earlier, these embodiments pertain to a single requester.

Claim 4.

wherein if a second request from a second requestor for one or more objects is received during the delivery of an object from the first request, such that an undelivered remainder of the object from the first request exists when the second request is received, the server schedules the delivery of the objects in the second request and the undelivered remainder of the object in the first request in ascending order of object size.

Applicants’ claim 4 likewise distinguishes over Kanemitsu and likewise recites a second requester. IN ADDITION, claim 4 distinguishes over Kanemitsu in reciting an UNDELIVERED REMAINDER of the object of the first request, and the reordering according to object size of the second object from the second requester and considering the

undelivered remained of the object of the first request. This aspect of applicants' invention is found in Fig. 6(b) and discussed in applicants' specification beginning on page 11 line 6. Here, at time $t=t_3$, the second object (Object 4 - #118) from the second requester is ready for transmission and is ordered in Fig. 6(b) upon considering the size of Object 4 in relation to the UNDELIVERED REMAINDER of Object 1 which is shown as number 64 and which is indicated in dotted lines. If Object 4 is smaller than the undelivered remainder 64, then Object 4 is placed at the fourth position in Fig. 6(b) and indicated as element 120. The undelivered remainder is positioned in the fifth position in Fig. 6(b) and is identified as element 122.

Kanemitsu is COMPLETELY LACKING as to any teaching of re-ordering objects and undelivered remainders of objects that are partially delivered. Kanemitsu is completely silent as to such teaching EVEN IN THE CASE OF ONLY A SINGLE REQUESTER.

Claim 6:

wherein if the user receives a plurality of objects for delivery to a Web browser, the user is programmed for scheduling the delivery of whole and partial undelivered objects in ascending order of object size.

As in claim 4, this claim 6 recites "partial undelivered objects" which is analogous to the "undelivered reminder" recited in claim 4. Claim 6 has been amended slightly in order to make it clear that it applies to situations in which whole and partial undelivered objects are transmitted. The original wording may have been construed to apply to a situation where only whole objects were being ordered. Thus, while this claim does not require a second requester, it does require partial undelivered objects to be included with the other objects in the re-ordering process. As explained in connection with claim 4, no partial undelivered (or "undelivered remainders") are disclosed or even hinted at in the Kanemitsu reference.

Further, the examiner has stated in Par. 6 of the outstanding office action as follows:
"wherein if *the user* receives a plurality of objects of delivery to *a web browser*,"
"*the user* is programmed for scheduling the deliver of..."

However, according to Kanemitsu, *the user* (information communication system 2) receives a plurality of objects, not for delivery, but for display. The *user* is NOT programmed for scheduling the deliver. It is the server (information providing center) which is programmed for scheduling the delivery of objects.

Priority Based on Object Size and Waiting Time –

Applicants' claims 3, 5, 7, 18 and 22 recite a priority value as follows:

assigning a priority value to the suspended object computed as
a waiting time of the object divided by the size of the object;
and

Moreover, the concept of "a priority value" computed as a waiting time of the object divided by the size of the object, is completely absent from Kanemitsu. While the Examiner points to column 4, line 58 through column 5, line 19 and column 5, lines 60-65, as well as column 6, line 28 through column 7, line 28, applicant can find no teaching therein of any priority value which is computed as a waiting time of the object divided by the size of the object. In fact, Kanemitsu does not appear to be at all concerned with the waiting time of the object and rests priority solely on the size of the object. However, as stated in applicants' specification beginning on page 11 at line 22, a problem of "starvation" may occur when larger objects are never delivered because there are too many smaller objects constantly being retrieved from the data base and transmitted. In order to prevent this starvation effect, in an embodiment of applicants' invention, there is provided a priority value which is assigned to each suspended object wherein the priority value is computed as the waiting time of an object to be delivered divided by the size of the object. No such teaching are disclosed nor made obvious in Kanemitsu.

Remaining Dependent Claims

With regard to claims 17-22, as stated in paragraph 8 of the outstanding Office Action, these claims are considered by the Examiner to correspond to method claims 1-7 and are similarly rejected. Claim 17 is deemed to be patentable for the same reasons indicated above with regard to claim 2. Claim 19 contains similar limitations as claim 4 and is deemed to be patentable for the same reasons indicated above with regard to claim 4.

Claim 21 is the method analog claim for claim 6 and is deemed to be patentable for the same reasons indicated above with regard to claim 6.

CONCLUSIONS

In summary, claims 2-7 and 17-22 are clearly patentable over the prior art.

In view of the comments set forth above, it is submitted that Patent and Trademark Office has not established a *prima facie* case of obviousness under the provisions of 35 U.S.C. § 103 inasmuch as express limitations of applicants' claims are not disclosed nor made

obvious over the applied Kanemitsu reference. As such, the § 103 rejection must be withdrawn.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

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